This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

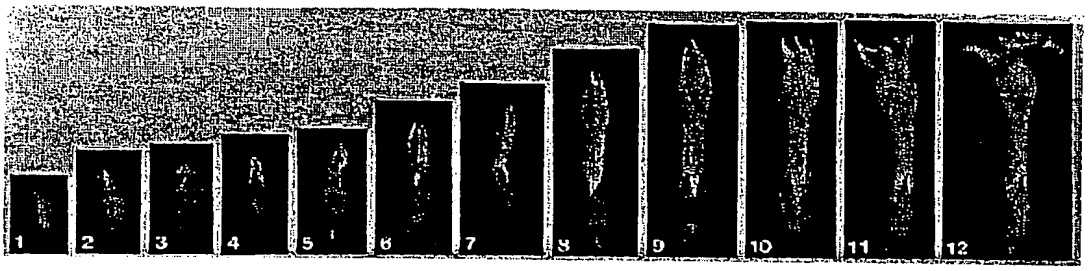
- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

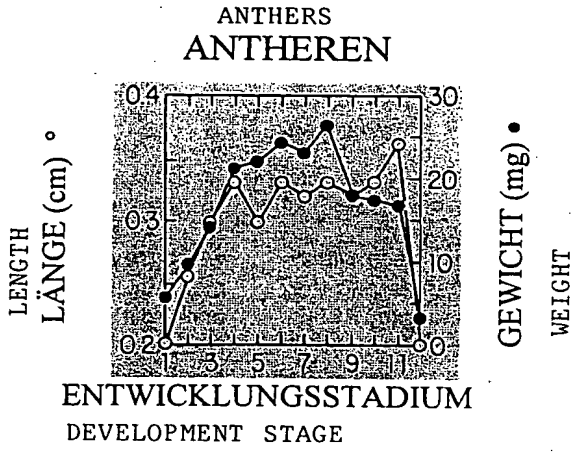
As rescanning documents *will not* correct images, please do not report the images to the Image Problem Mailbox.

Fig. 1

A

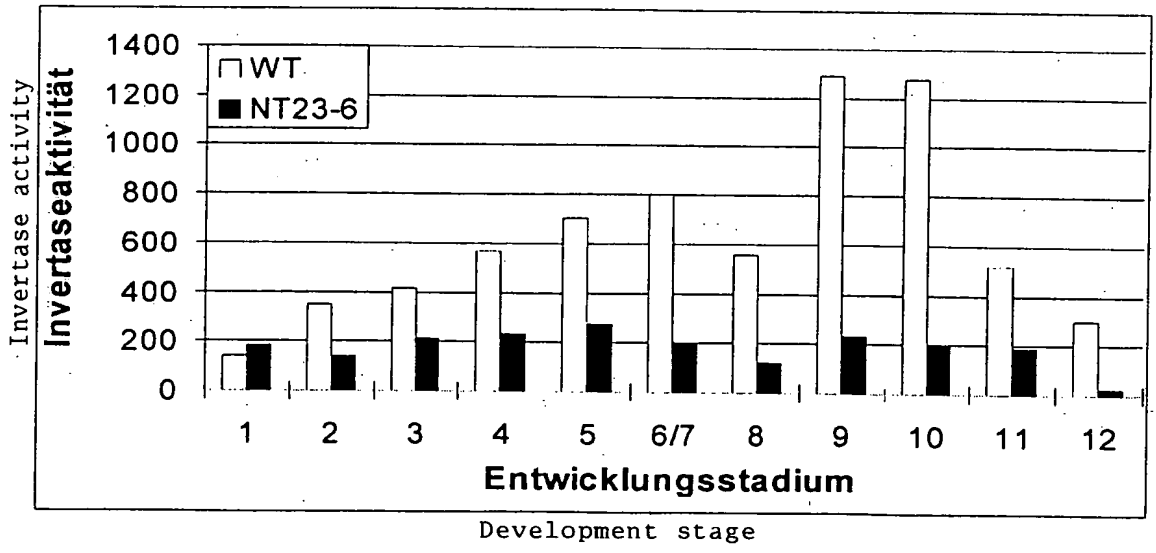


B



Invertase activity in tobacco pollen
Invertase-Aktivität in Tabak-Pollen

C



Extracellular invertase NIN 88 of tobacco pollen is specifically expressed in anthers

Die extrazellulläre Invertase NIN88 von Tabak-Pollen wird spezifisch in Antheren exprimiert

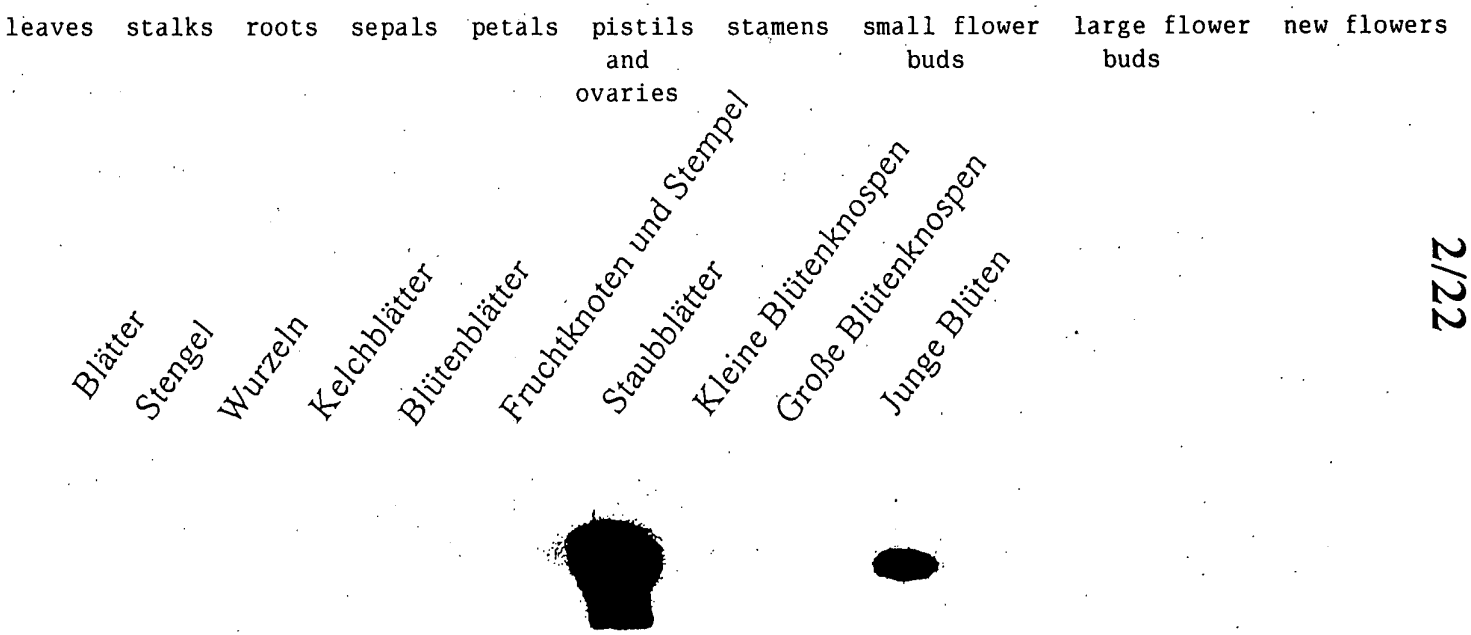
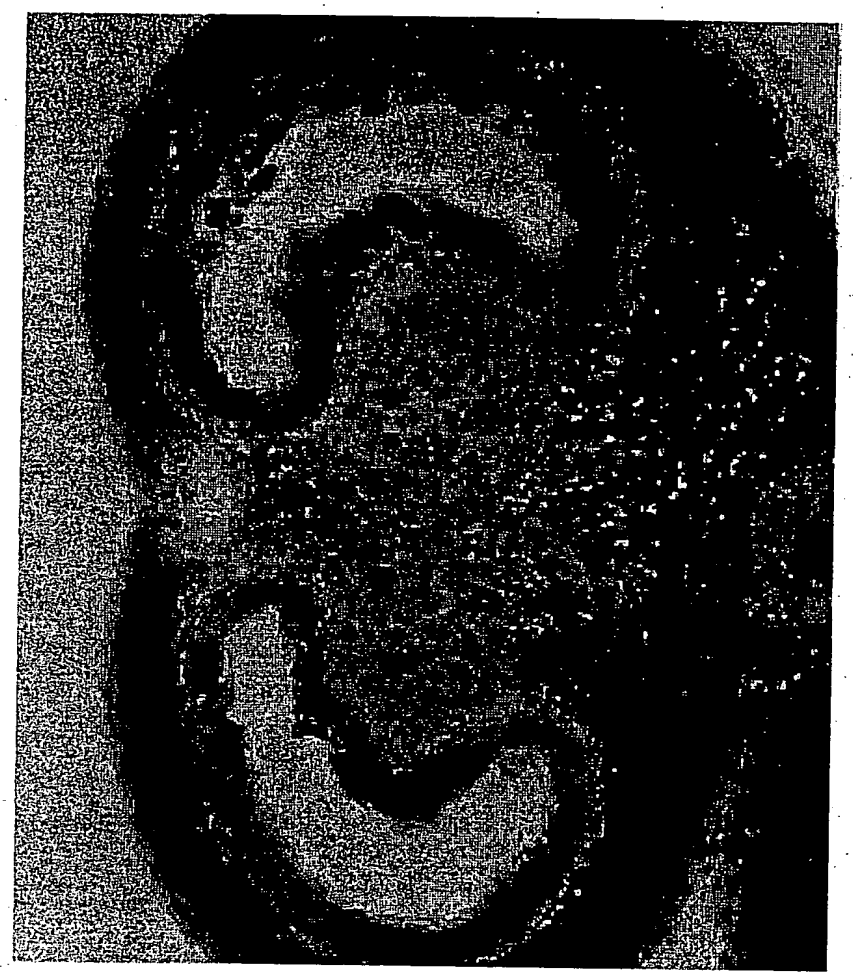


Fig. 2

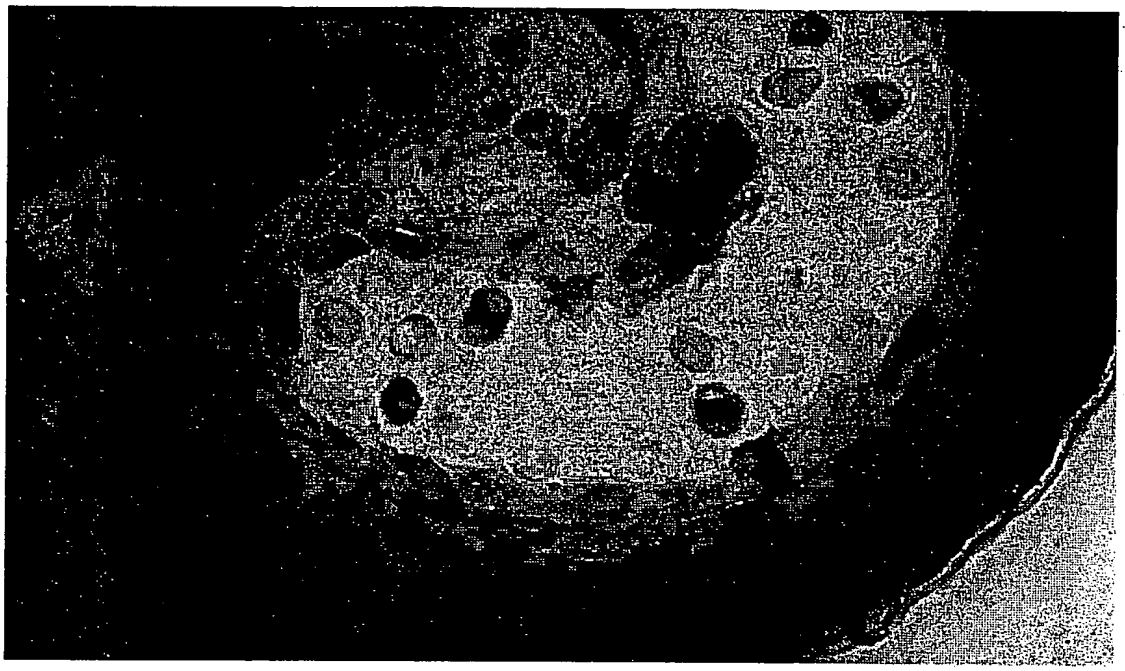
10/009966

A



Part
Fig. 3 (Teil 1)

B



C

Part

Fig. 3 (Teil 2)

Fig. 4

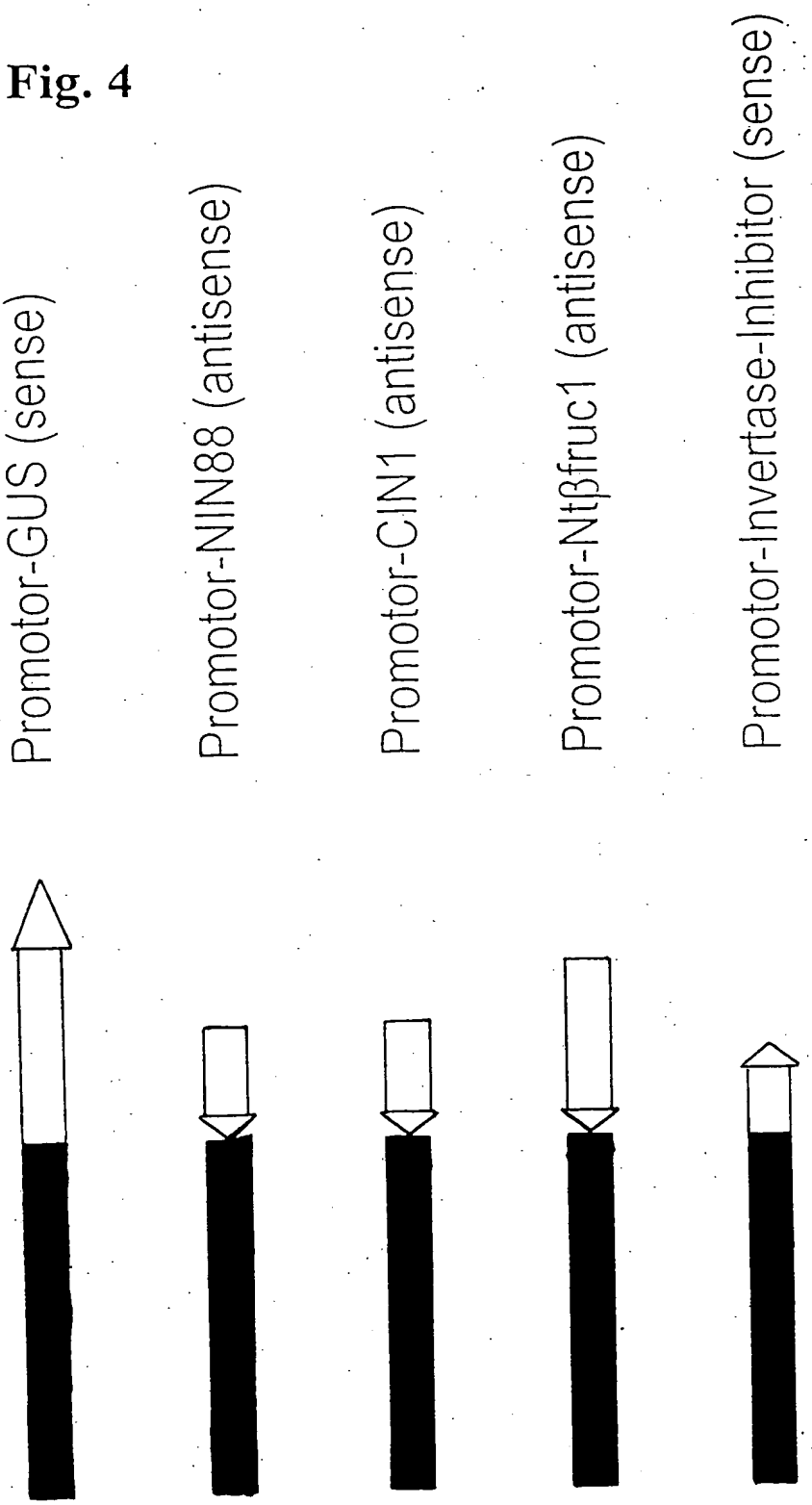

Promotor-GUS (sense)
Promotor-NIN88 (antisense)
Promotor-CIN1 (antisense)
Promotor-Ntβfruc1 (antisense)
Promotor-Invertase-Inhibitor (sense)

Fig. 5 (Teil 1)

Promoter-DNA sequence of extracellular invertase NIN 88 from tobacco

Promotor-DNA-Sequenz der extrazellulären Invertase NIN88 aus Tabak

```
   1  TCTAGAATGA CGCCACCGGC CAGGACGGGG AGTATGATTT CCCCGAATGT
  51  TCGTTCAACT GCATTGTTAA AACCTGTTAG CGTGATGCAG CCCGGTACTA
 101  TCTTATCCTC GAGTTTCATT TGTGCAAGTA CTCGAGGATG GACAATTCAC
 151  GGGCCACTCC CATCGTCCAC CATAATGCGT CTTACATCTG TATCTAATAT
 201  TCGTAAAGTG ATAACGAGGG CATCATAGTG AGGGAAAACC AAACCGTGGT
 251  TATCTGACTT ATCGAAGATG ATACTTTCTT TAAGTTTCTC GTACCGTTCA
 301  TGAGTGATTA ACTGTTTGAG CTTGTGGGTT GTGGCGAACT TTACGTTGTT
 351  GATCGAAACG TCGTCTCCGC CCCCGATGAT AATGTGAATG GTGCGAGTCG
 401  GTAAGGGTGG TTTCGGCGGT CCCTGGTGTT GTTCACGTCC TCGAGAAAAG
 451  TTGGTCCTTC CTCGGTCACA CAACAATATT TTGAGGTGTC CTTGATGAAG
 501  CATGTCCATG ACCTCTTGTC TTAGGGCGAT ACAATCCTCA GTTTTGTGAC
 551  CTCGCTCTTG GTGGAACTCG CAGAGGGCAT CTGATTTTCT AGTGCTTGGA
 601  TCTGACCTCA TCTTTTGTGG CCACTTTACT TTTGGTCCGA GCTTCTTCAA
 651  TGCATAGACT ATTTCTGAGG GTGACACACA AAATTTGTGA GCGGATAGTA
 701  AAGAGGGCAT ACCTCTCTCG TTCCGGTGAG TCCCTGTCCT TGGCCTAGAT
 751  GGGCCCTCTT CGTAGCGGGA GAGGGGCATG ATGGCACTTT TGACATATGG
 801  TTGATCCATT TCTCGGTTAG ATCATGGAGC TGCAAGATCT CTCTTGGCAT
 851  CATTTTGACG ATCCTTCCTG GTTTCGGCTT GTACCGAGGT CAATCGATGA
 901  GTTGGCCCAT TCAGGTCGTC TTCGTCGGCA CGGGCCTCAG CACAGTAGGC
 951  GTTGTGTATT TCATCCCAAG TGGTTGGAGG ATATTTCATA AGTTGGTTTA
1001  ACAGTTTTCT GGTCGCCCTC GAGCCATTCA TGTTCAGCCC ATTCTGGAAA
1051  GTTGCTACAA CCATTCCTTC TGATACATTC GGTAAGGTCA TCCTTACTCT
1101  GTTGAATCGA GCGAGGAAGT CCCTCAATCC CTCTCCGAGT GATTGTTTGA
1151  TGGCAAATAT ATCGTTCACT CTTGCCTCCG CGTTTTTAGC CCCAACATGG
1201  GCCATTATGA ACTTGTCGGC CATCTCTTCG AATATTTCAA TGGAGCGCGC
1251  GGGCAGCTGT GAATACCAAG TCAATGCTCC TCCGGTAAGG GTCTCGCCGA
1301  ACATTTTCAA CAAGATGGAG GAGACTTGTT CTTTGGAGAG ATCATTGCCC
1351  TTTACCGCAG TGACATAATG ATTACATGAT CTTCGGGGTC GGTCGTACCA
1401  TCATAAATTT TCAGATAAGG TGGCATCTTG AACGTCTTGG GTATGGCATA
1451  TGGGGCGGCT TCATCACTGT AGGGTTGCTC GACTAACCGA CCAGCGTCTC
1501  TTTTTGGAAA TATTTTTGGG GCACCCGGTA TTTTATCGAC TCTTTCTTGG
1551  TGTTCTCTCA TTTGATCCCG AAGCATTTTA TTTTCGTTTT CCATTTCTTC
1601  CATTTTCTTC AGAATGGCCG TGAGGGTGTC ATTACCTGCA TTATTAATAT
1651  TGTGAGTGAT ACCTGTTACT GAAGGGGGAG GGTCGTGCTG TTTGGTCATT
1701  GCTGGTGCAA TGCAAGTCCT TGCATTTTCT CTAAATACCT CCTGAGTGGG
1751  TTTGTTGAGG ATGCCGGTCA GCATATTTGT CAGCCAAGCT TCGAGTAGCT
1801  TCTTCACCGC TGGTGGCGCC TCTTCCGTTG TGGACGTGGA AGCTCCTTTA
1851  CCGCGGGATG TTGCGATACT GCTGTGAGGG AGGGGTGATC CACTTCGTCG
1901  GGGAGAGGTG TTAGGCGTTA TGCCTTCGCC TTCTATTTCG GAGACCTCAT
1951  TGATGGTGTT TAAGAGGTTG GTAGTGAGAT TGGCCACTGC CTTCATCCTT
2001  TCTTCTCCCT TACCTGCCAT GTCAGATCTG GGTGTACAAG GAAGTAGGAG
2051  CTTCTCTTCT TCTTTTTTGT GAATTGTGCC AGTTATAGAT CTAAAAGAAA
2101  CTAAAGTTTT AACTAGACTA TCCTCACAGA CGGCGCCAAA TTGTTTGACC
2151  AAAAAATATA GACTTTTGAT TAAATTAATT AATATTGTAT GACAAAGGAT
2201  TAAACCTAGT TAATGATAAT AACTTCAGAT CTATAATCAA TTAACAGCAA
2251  TCACGGTCAT AGCAGCGTTG AGAGAAGATT AAATGTGATG TYCATTCAAT
2301  ATTTCAAGAT CATTAATGAT AGGGGAATAT CAAGCAATAA ATAACGATAA
2351  ATGGCATTAA AGTAAATAAG GAGAATGATT CACCCAATAT TGAATGAGGT
2401  GGATGATTCT TCTTTTTGAC AATGATGAAT GATGGGCAAA TACTAGAATG
2451  TTGGGACCCT TCTCGGATCT AATGAAAAAA GTATGGAATA GTAGATAATC
2501  GAATCTCTTT AGAAAGGTAG TGATTGTCTT TTATCTAGAG AGAAAGTCTG
2551  CTTTTCAAAG AATATTTTTA TCAGAGAATA TTACATCCCC CTCTCTCCCT
2601  ATCTCTTTTT CTATTTATAT GGGACATTCC TCAATCAATC CTAAAAGTAC
2651  ATACACCAAG AATATTCAAT AAAATATTTT TTTGAATATT CTATTATAAA
2701  AACTAGCTGT TAGCACTCGA CCTCGGTCGY TATTGACTAC TCGGTTACGA
2751  GCCCTGTCAT TTACTAATCG ACCTCGATTA CATCACTTTC TACGATACTG
2801  CTTCATGTCA AATCTTAATG AAAGCAGATT TTGACCCATA CAATAATATG
2851  ACAAAATTGC TTCCAAAGAA AACATGGCTC TTATAGTGAA ATATCGTTAG
2901  ACTGTTATAG AAAGATCTGA ATTTATTTAT AAGAATAGTG TTTTTTTCTT
2951  TTCTTTTCAT ATCTAAGGAG TAAAGCAACC ATGAATAGAA AAGGCTTAGT
3001  AACTATATAT CAAAGGAATG GTGTTTTTTC TTTAAATATG GATAAAATT
```

Fig. 5 (Teil 2)

3051 TGTGAATATA GAAGATTAGA TCAATTAACA AAGGTTATGG TGGAGTGGTA
3101 AGCAGAGGCG GACCTATGTG TTATAGTAAG GGGTCACCCA CTACTAGAAA
3151 TCCGGTAAAG ATCGATCAAA AAACCGACCA ACATTGGTCG GTAATGGCCA
3201 AAAACTGACC AAAACGCGAT CATTTACGTG TGAACGGTAT TTTTATGGTC
3251 GGAAAGGAAT ACCGACCAAA GTTGGTCGGA AATTACCGAC CAACTTTGGT
3301 CGGTCAATTA AATTCAAAAA AAATATTGTA AAAAAAAACC GACCAAAGTT
3351 GATCGGTATT TTAATTATGT AATAAAAAGA TTCACTATCT GGGAATCGAA
3401 CCGGGGTCTG TACTATGGCA AGATACTATT CTACCACTAG ACCATTGGTT
3451 CATTTTGTTT TAAGACTGTC TTTTATTTGA TTTATACTCT TTAATTATAT
3501 TTTTGCACGA AAATAACCGA CCAAAGTTGG TCGATTTTAT TAAAAAGTAA
3551 AATTACTTAC CAAAGTTGGT CGATTTTTTT AAATGATCCG CCGAATTAAC
3601 CGACCAATTT TGGTAGGTTT TTTTAATATT AATTTTTATT TATTTTAATT
3651 GAAAAACTAA CCAAAGTTAG TCGGTTTCTT GAAACATAAA TTTCGCGGGA
3701 CTCAAAAATA GTTTCCCGCA TTTTTGCGCC AAAGAAAACC GACCAAAGTT
3751 GGTCGGTTTC GTAAAAAAAA AAAAAATTTA AAAAATATAT TTTAAAAAAC
3801 CGACCAACTT TAGTCGGTTT TTTGGTCGAT TTTTTGACCG ACCAAAGTTG
3851 GTCGGTCGAC CTTGGTCGGT TTTTGCCGAA TTTCTAGTAG TGACCGAACC
3901 CTGTAAGCTT CGGGAGAAAT TTTGTATATG TATATGTGTA TATCCTTAAA
3951 ATGATTAATT TAAAGAACGT GGCACCCTGA ATACTAGAAG CCTTTAGGGG
4001 CACTAGATGA GCAGAATAAC GTGTTCTCGT CGCGTAAAAA TACTTGGATC
4051 CGCCTATGAT GGTAAGTACT TCTTCGTCCT TAATCAGAGG TTTCGACTTC
4101 GAGCTCCAGA TATAAACTAT AGACTCGTCT TTATAGCACC TTTTAATAAG
4151 ACTATGACTT CATCTGATTT CTCTATAAAT ACTCCTCAAG CTTTCGGTTC
4201 TTCTCCATTG TTCAGTTTCT TTCTCCACAT CACAGAAGTG AAAACAAAAC
4251 AAGAAGAAGA AGAAGAAGAA AAATAAAGAG TTTCTGTCAA ATTAAGTCCA
4301 ATAGGGAAAA TG

Fig. 6 Expression of a NIN 88 promoter GUS fusion in transgenic tobacco plants

Expression einer NIN88-Promotor GUS Fusion in transgenen Tabak-Pflanzen

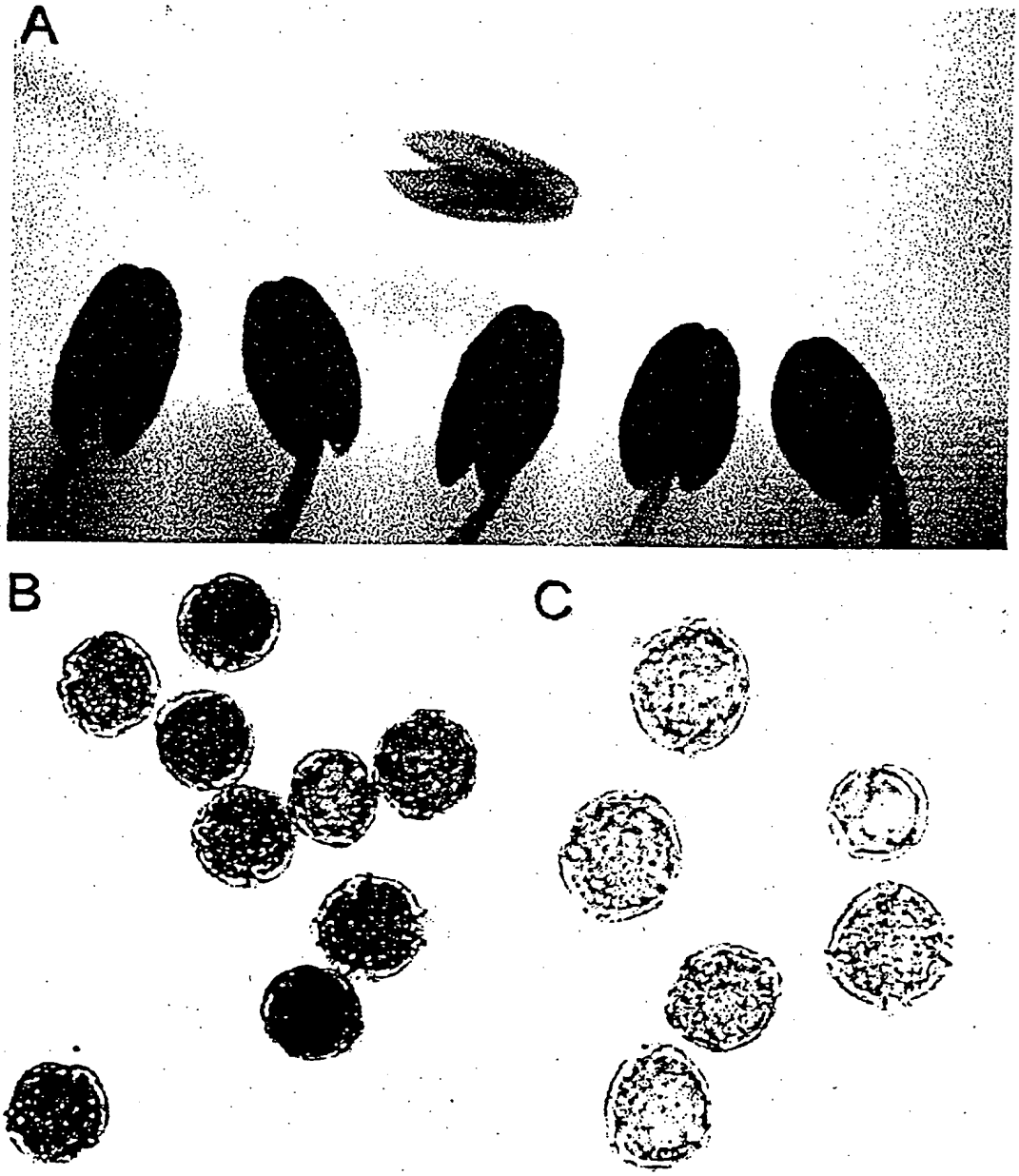


Fig. 7

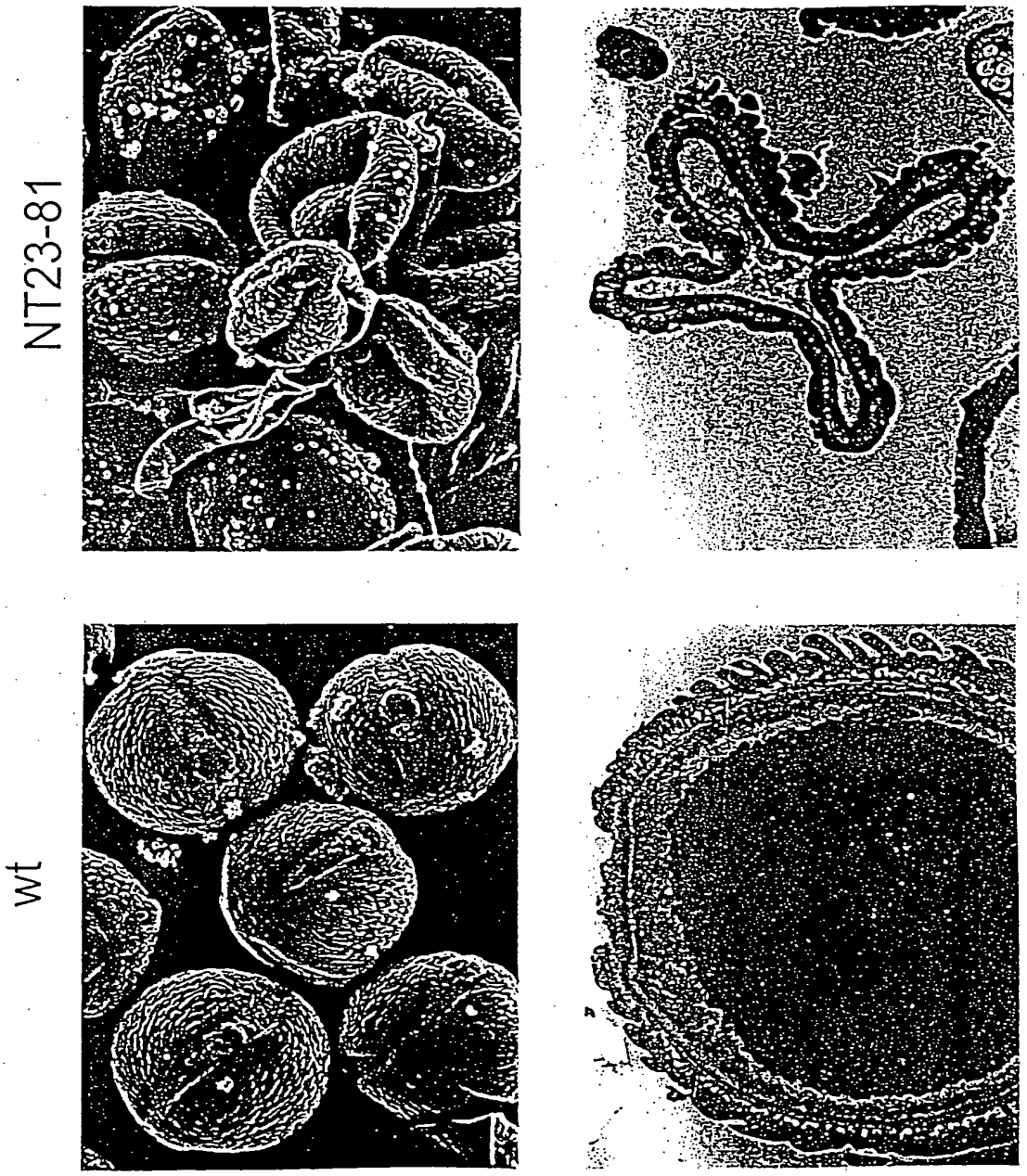


Fig. 8

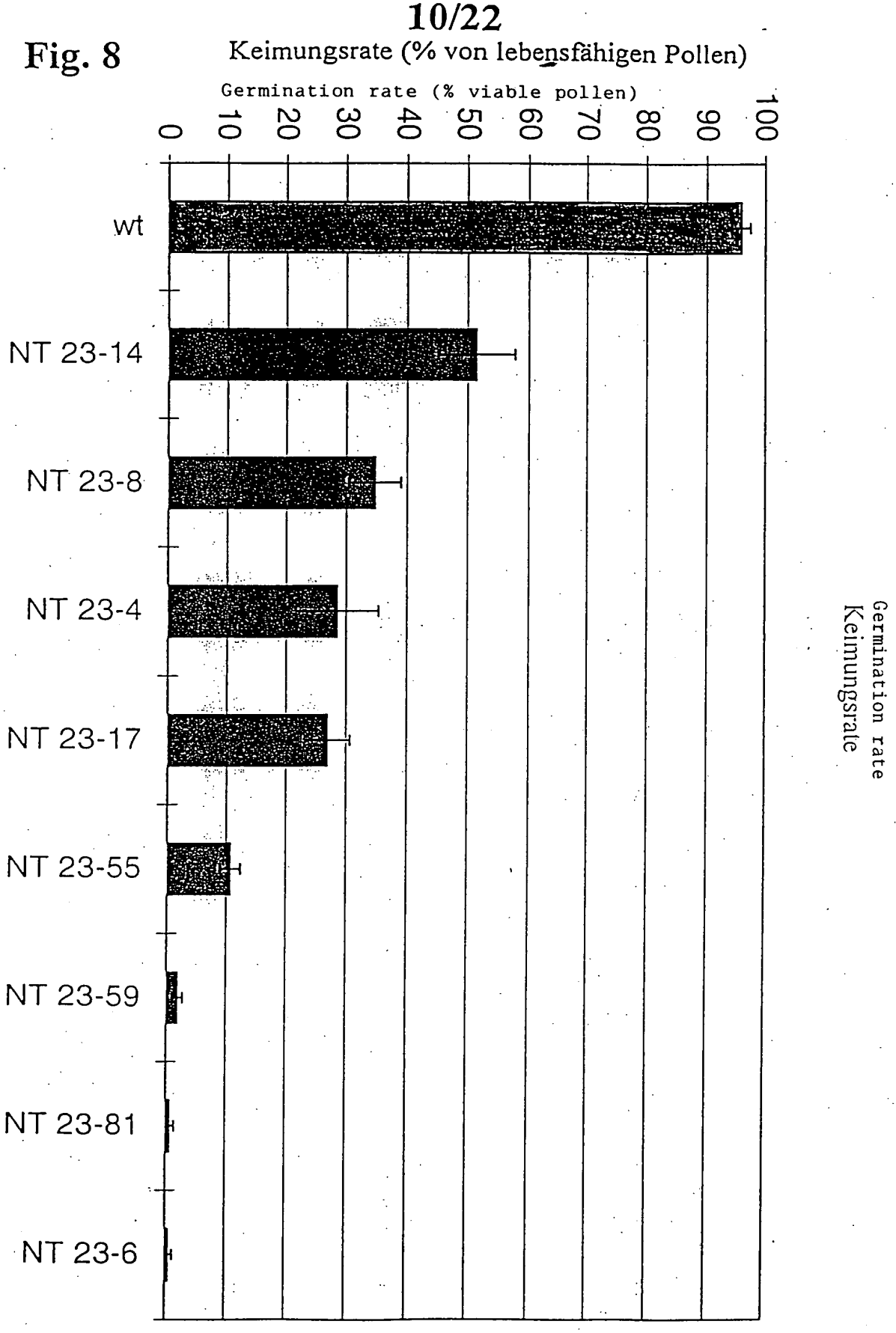

Keimungsrate (% von lebensfähigen Pollen)
Germination rate (% viable pollen)
0
10
20
30
40
50
60
70
80
90
100
wt
NT 23-14
NT 23-8
NT 23-4
NT 23-17
NT 23-55
NT 23-59
NT 23-81
NT 23-6
Germination rate
Keimungsrate

Fig. 9

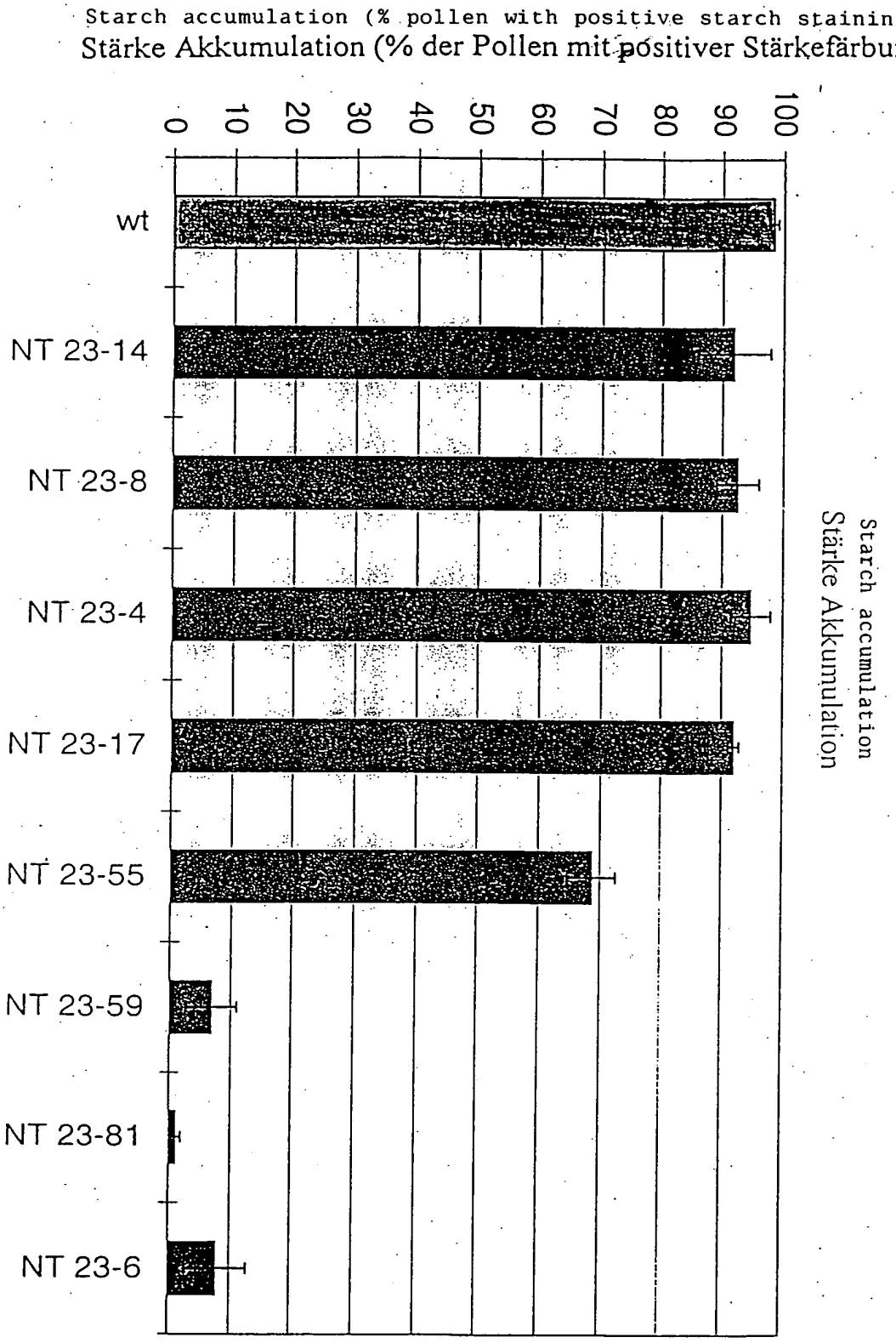

Starch accumulation (% pollen with positive starch staining)
Stärke Akkumulation (% der Pollen mit positiver Stärkefärbung)
0
10
20
30
40
50
60
70
80
90
100
wt
NT 23-14
NT 23-8
NT 23-4
NT 23-17
NT 23-55
NT 23-59
NT 23-81
NT 23-6
Starch accumulation
Stärke Akkumulation

Fig. 10

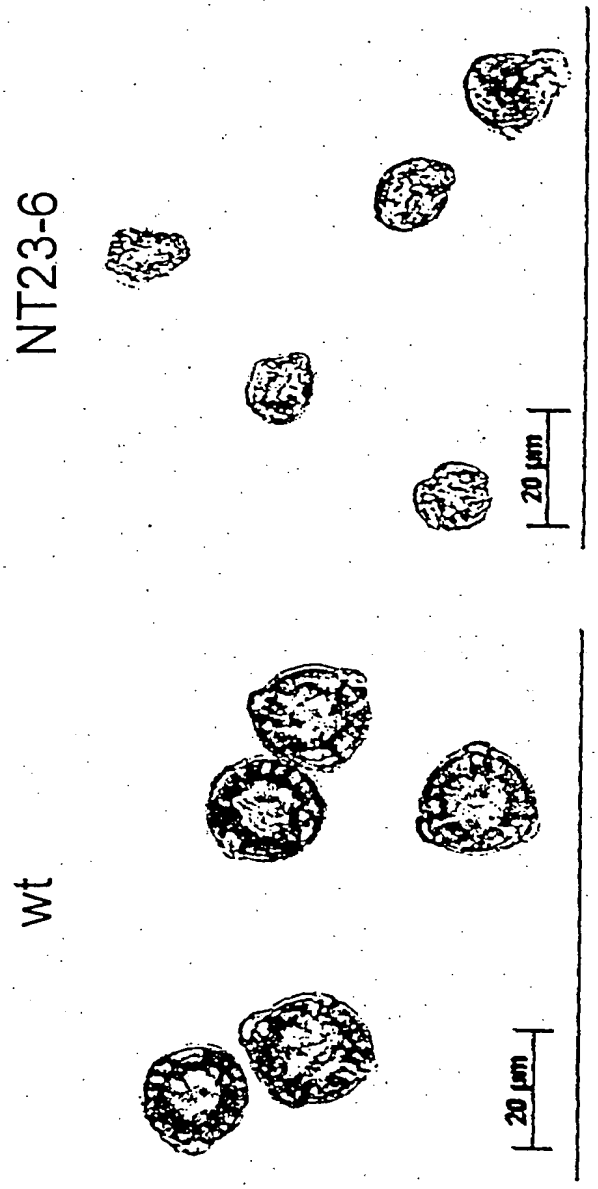


Fig. 11

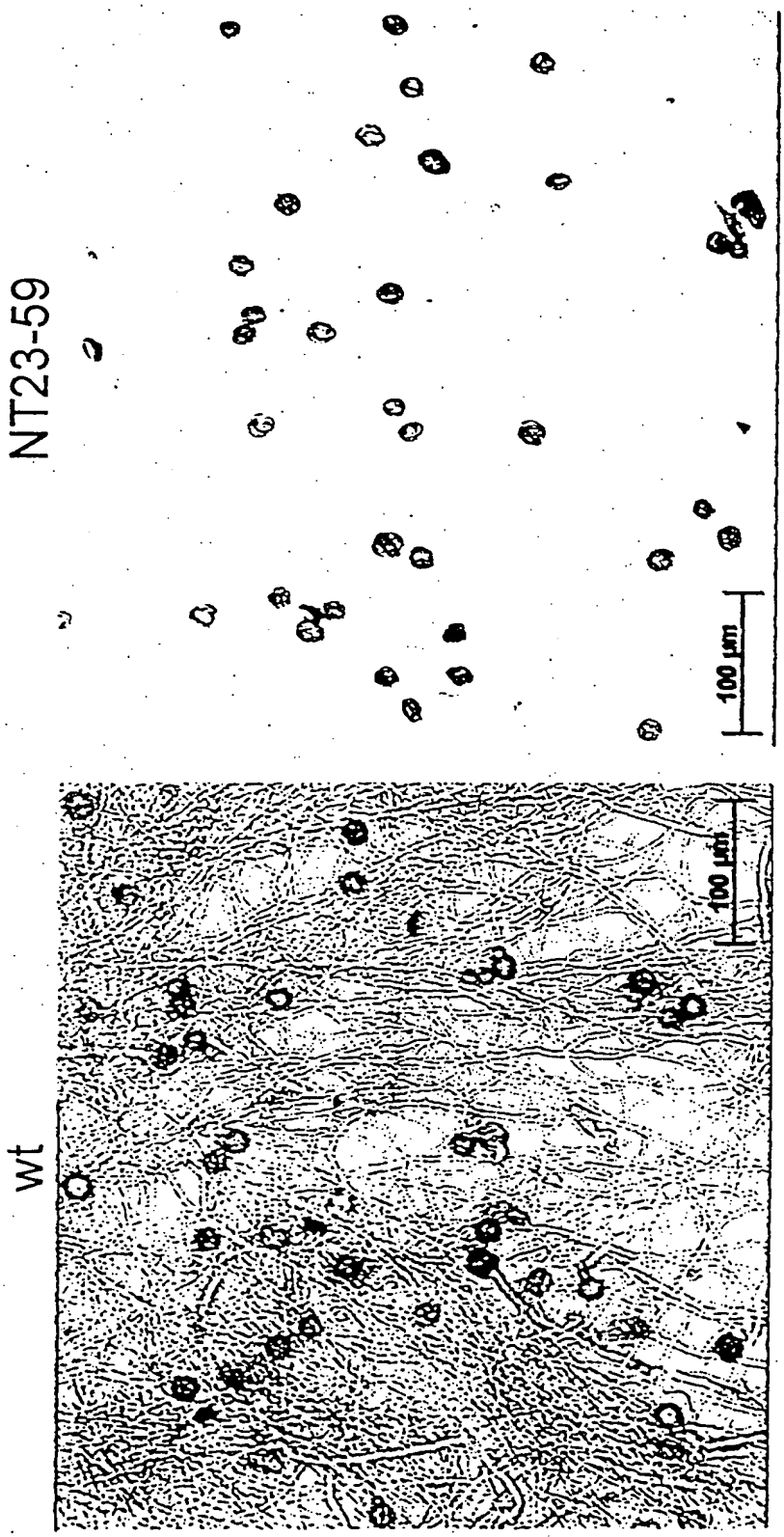
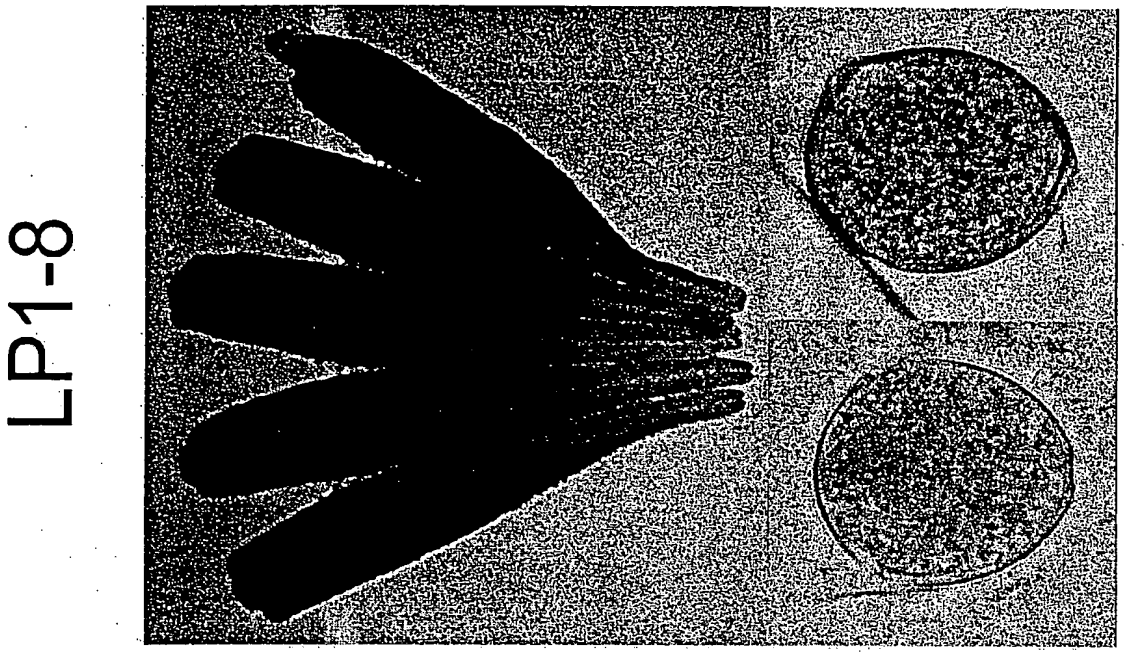


Fig. 12



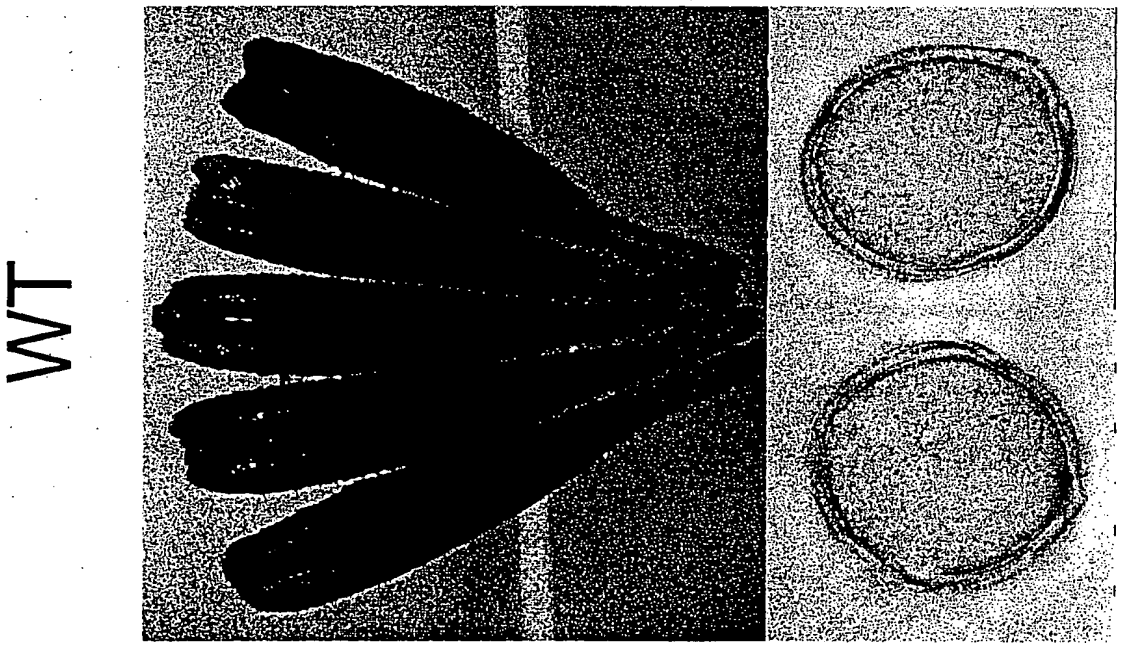


Fig. 13

A
2,4 kb -
Stalks
Sicngel
Seedling roots
Samlingsswurzeln
Roots
Wurzeln
Small Flower buds
Kleine Bluienknospen
Large flower buds
Große Bluienknospen
Flowers
Bluien
Green Fruit
Grune Frucht
Red Fruit
Rote Frucht
A. tumefaciens Tumore
A. umefaciens Tumore
B
2,4 kb
Gynoecium
Antheren
Petals
Pelalen
C

Fig. 14

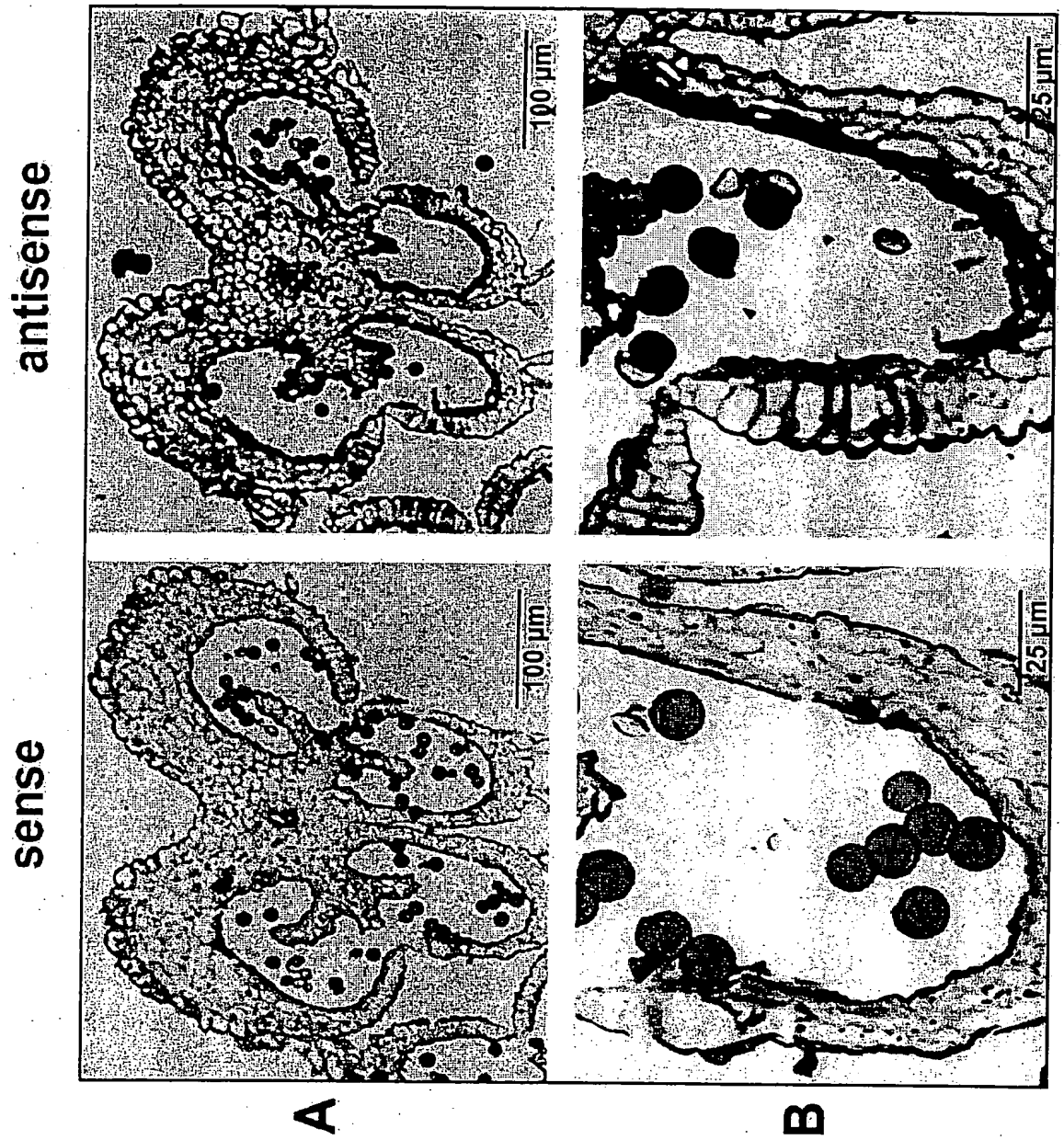


Fig. 15 (Part Teil 1)

Genomic sequence of NIN 88
Genomische Sequenz von NIN88

```
   1  ATGGAGCTGT TTAGAAAAAG CTCTTTTCAT TGTGCTTTGC CAGTTTTCAT
  51  ATTATTGGTT TGCTTGTTTA TAATTTTATC TAACTATGTT GTGTTTGCTT
 101  TCAATTATGA CGTTTTTACG TGCTTCCAAT CCTCAAAAGA TGCTAATATC
 151  ACTTCTAACT ACAGAACTGG TTACCATTTT CAACCCCCCA AGAACTGTAT
 201  GAATGGTACG TTTCTCTCCC CTTCCACCCA CCCCACCCCC TCTTCTGTTG
 251  TTGCTTTTGA TATGTGTATA TATATATATA TATCCATTTT TTGCTCGGTA
 301  TCGGCATTAG GATCCACTAA ATTCGGCATT GAGGGGTAAT TAGGCGTCTA
 351  ACAAAGTCAA TTCCATAACT AGGGCTCGAA CCCGAGACTT CCGATTAAAA
 401  ATGAAGGAGT ACTTAACACT TATTCTGTAA CATTAAACAA TAGACATCCT
 451  ACTCCTCTAA ACTCATTTGT ATTTTTAAAA TATCTATTTT ACCCTCGATC
 501  TTATTAGCCT TCATCTACTT TTTTTTTTTT TACTTTTTTA ATATCACAAT
 551  ATTTTCTTAT TCTATGTTAT GAATTTACCT ATAGTGAACA TAAAATTTAA
 601  AAAAGGTGAA AAACAATAAT CAATCATATA CTTATTGAAG TTAGAATAAT
 651  GAAACAAATG GGCGCAATTA AAATATTAGA ATAACAGATC TTATTAATAT
 701  CAATCAAATA AAATTTAGTT CAGTAATATA AAAAAATAAT TAAACATAGA
 751  GGTAGATTTT CTAAGAAATT CCTAAAAGAT TATATATTTA TAACTTAGAA
 801  AATATTTTGT TAATGAAAAT AAATATTCAA AGATATATAC AGAACAACAA
 851  CAACAACCCG ACCTTACCCC TACCCTGGGG TAGAGAGACT GTTTCCGATA
 901  GACCCTCGGC TCCCTCCCTC CAAGAACTCC CCACCTTGCC CTTGGGATGA
 951  CTCGAACTCA CAACCTCTTA GTTGGAAGTG GATGGTGCTT ACCACTAGAG
1001  CAACCCGCTC TTGTCCGAAG ATATATACAG AAACATGTAA TAAAGAATAA
1051  AAGAGAAAGT AAAACTTAAA TATATAGATA ATATTAATGT AACGATAAAA
1101  AAGAGTAACG ATAATTGTTT TTGCAAATTC ATAAAGGTAT TATTCTAGTT
1151  AAATTTTATT GAGTTTTAAT TATATAATTT ATCATAAGAT ATTAAAATTG
1201  GTAAAATACT TAGGCTAATG ATAAAATACA TCTTATATAA TATTAAAAAA
1251  AATAGAGGAG AAATTGAAAA TGTCAAGGGT AAAATAGAAA ATGCATATGA
1301  TAGGAGGAGC GAAATATATA TTATTTAGTG TTGGAAGAGT GATTTGATTT
1351  TTAAGATAAA ATTAGGGGAT GAAAATGATT TTTACACTTT AATAGATAGA
1401  TCCTACTGAA ACACGTGTGA GTTCCAAAAG CAAAAAACGA AAAAGGAACC
1451  AGCTCCCTAA TAATGAGTAC TTATTATACA AGTAAATACA ATTAGAGGAC
1501  ACTAATTGCA ACCCCCTACT TGGGAACTGT CGGCCTATTG CTTTAATTAC
1551  TTATACTCTC ACTCCGTTCA CTTTTACTTA TCCAATATTC TAAGTGACAT
1601  TTGGACATAA GAATTGTAAA ATTCCAAAAT AGGAAAAAAA AATACAAGTG
1651  AAAATGTTAT TTGAAATTTA GAGTTACGTT TGGACATGAA TATAATTTTG
1701  GGTTGTTTTT AAAGTTTTGT GAGTGATTTG AGTGAAAATT TTGAAAAACA
1751  GTTTTTTGAA GTTTTTCAAA TTTTCGAAAA TTTTCAAAAT GCATCTTCAA
1801  ATGAAAATTG AAAATTTTAT GAACAAACGC TGATTTCGAA AAAAAAGTGA
1851  TTTTTTTGTG GAAAAAAGAA AAAAATTTCT TATGTCCAAA CGGGCTCTAA
1901  AAATAGATTT TCACTTTTAC TTGTCACTTT TCGCATATCA AGAGAAGACA
1951  ATTTCTTTTT TTCTGTTATA CTCATAGTAT TAATTACTCA TTTCAAATCA
```

Part
Fig. 15 (Teil 2)

```
2001  TTTTTTCAAA TCCACTAAAA ATATGTATCA ATTAATATGG GTATTATGGT
2051  AAATTATGCA CTTCATTTAT TATTTCTTAA GGAGTGTTCA AAGTCCGTAG
2101  TAGACAAGTA AAAGTGAATG GAGAGAGTAA TAAATTACAC CTACTTTCTT
2151  GGAAATACCA GTTGAGACAT ACGTAGAACT TTTGCTAATT TTTTCTTATT
2201  TTTTCTTAAT TATATTATAT TTGTGTGTGA TATGGGCAGA AGGGGTTGGT
2251  AAGAAGGATC TTGTCCCCAT CAGCAACTTA CAATATTTTA GGGAAGACAA
2301  ATAATAATTT TCTGCATTTC CTAAATTTTT GTAATTTCAC TTTTCATTTG
2351  TTTATTATTT GATTATTCAT CAATATTAAA TTATGCAGAT TTAGTACTCA
2401  CATTCAATTG TTTATTTACA ATTTTTTTTA ATTTTTTTCT TTATGGTCTT
2451  TCTCGATGCC TTCAAACATA CAAATAGACC CCAATGGTGA GTCAGAAATT
2501  TTATCTTCTT TTTATATATA TAATTTAATC ACCAATTATT CATTTATGAT
2551  ACTGATTTTT CATGTAATTA CCAACAGCAC CAATGTATTA CAATGGAGTC
2601  TATCATCTAT TCTACCAGTA CAATCCAAAA GGATCAACAA TGAACAACAT
2651  TGTTTGGGCT CATTCAGTCT CAAAAGACTT AATCAATTGG ATTAATTTAG
2701  AGCCTGCAAT TTATCCATCC AAACCATTTG ACAAATATGG AACATGGTCT
2751  GGTTCAGCAA CTATTCTCCC TGGTAACAAG CCCATTATTT TGTACACTGG
2801  AGTGGTAGAT GCCAACATGA CCCAAGTCCA AAATTACGCC GTCCCGGCCA
2851  ACTTATCCGA TCCATATCTC CGTGAATGGA ACAAGCCCGA TAACAACCCG
2901  TTGATCGTCC CGGATATCAG CATCACCAAG ACCCAATTTC GTGACCCGAC
2951  AACAGCTTGG ATGGGCAAAG ATGGTCATTG GAGAATTGTG GTAGGAAGTT
3001  CAAGAAACCG TGGTGGGTTG GCAATATTGT ATAGAAGTAG GAATTTCATG
3051  AAATGGATCA AGGCTGAGCA TCCACTTCAT TCATCTGCCA AAACAGGAAA
3101  TTGGGAATGC CCAGATTTTT TTCCTGTTTC CTTGCAAGGT TCTAATGGTT
3151  TAGATGCATC GTACAACGGA AAATATGTTA AGTACGTTCT CAAGAATAGC
3201  CTTCCTGTTG CCGCGTTTGA GTACTACACA ATTGGTACAT ATGATGCCAA
3251  ACAAGATAGG TATATTCCAG ATAACACTTC AGTCGATGGT TGGAAAGGAT
3301  TGAGACTTGA CTATGGCATT TTCTACGCGT CTAAGTCGTT CTACGACCCT
3351  AGTAAGGACC GAAGAATCGT GTGGGGTTGG TCTTATGAAT TAGATGGTCT
3401  CCCCAATAAT GAAAACAACA AAGGATGGGC CTGGAATTCA GGCTATCCCG
3451  CGTAAAGTAT GGCTTGATTT CAGTGGTAAA CAATTAGTTC AATGGCCTAT
3501  TGAAGAATTA AAAACTCTAA GAAAGCAAAA TGTCCGATTG AGCAACAAAA
3551  GGCTGGATAA TGGAGAAAAG ATTGAAGTTA AAGGAATCAC AGCGTCGCAG
3601  GTTTAGACTT TTTTCTAGTT TTTAATTTGC AAGCATTTTA AATAAAATTT
3651  TCTTCACAAG TTAAGGCTAA GTTGGGACAT CTATTGAAAT TGCCAGGCTG
3701  ATGTTGAAGT GACATTCTCC TTCTCTAGCT TAGACAAGGC AGAGCCATTT
3751  GATCCTAGTT GGGCTGATCT TTATGCACAA GATGTTTGTG CAATTAAGGG
3801  TTCAACTGTT CCAGGTGGGC TTGGGCCATT TGGCCTTGCA ACATTGGCTT
3851  CTCAAAACTT AGAAGAATAC ACACCTGTTT TTTTCAGAGT GTTCAAAGCT
3901  CAGAATTT
```

Part

Fig. 16 (Teil 1)

Sequence of NIN 88 promoter fusioned with NIN 88 in antisense orientation

Sequenz von NIN88-Promotor fusioniert mit NIN88 in antisense

```
   1  TCGAGCCATT CATGTTCAGC CCATTCTGGA AAGTTGCTAC AACCATTCCT
  51  TCTGATACAT TCGGTAAGGT CATCCTTACT CTGTTGAATC GAGCGAGGAA
 101  GTCCCTCAAT CCCTCTCCGA GTGATTGTTT GATGGCAAAT ATATCGTTCA
 151  CTCTTGCCTC CGCGTTTTTA GCCCCAACAT GGGCCATTAT GAACTTGTCG
 201  GCCATCTCTT CGAATATTTC AATGGAGCGC GCGGGCAGCT GTGAATACCA
 251  AGTCAATGCT CCTCCGGTAA GGGTCTCGCC GAACATTTTC AACAAGATGG
 301  AGGAGACTTG TTCTTTGGAG AGATCATTGC CCTTTACCGC AGTGACATAA
 351  TGATTACATG ATCTTCGGGG TCGGTCGTAC CATCATAAAT TTTCAGATAA
 401  GGTGGCATCT TGAACGTCTT GGGTATGGCA TATGGGGCGG CTTCATCACT
 451  GTAGGGTTGC TCGACTAACC GACCAGCGTC TCTTTTTGGA AATATTTTTG
 501  GGGCACCCGG TATTTTATCG ACTCTTTCTT GGTGTTCTCT CATTTGATCC
 551  CGAAGCATTT TATTTTCGTT TTCCATTTCT TCCATTTTCT TCAGAATGGC
 601  CGTGAGGGTG TCATTACCTG CATTATTAAT ATTGTGAGTG ATACCTGTTA
 651  CTGAAGGGGG AGGGTCGTGC TGTTTGGTCA TTGCTGGTGC AATGCAAGTC
 701  CTTGCATTTT CTCTAAATAC CTCCTGAGTG GGTTTGTTGA GGATGCCGGT
 751  CAGCATATTT GTCAGCCAAG CTTCGAGTAG CTTCTTCACC GCTGGTGGCG
 801  CCTCTTCCGT TGTGGACGTG GAAGCTCCTT TACCGCGGGA TGTTGCGATA
 851  CTGCTGTGAG GGAGGGGTGA TCCACTTCGT CGGGGAGAGG TGTTAGGCGT
 901  TATGCCTTCG CCTTCTATTT CGGAGACCTC ATTGATGGTG TTTAAGAGGT
 951  TGGTAGTGAG ATTGGCCACT GCCTTCATCC TTTCTTCTCC CTTACCTGCC
1001  ATGTCAGATC TGGGTGTACA AGGAAGTAGG AGCTTCTCTT CTTCTTTTTT
1051  GTGAATTGTG CCAGTTATAG ATCTAAAAGA AACTAAAGTT TTAACTAGAC
1101  TATCCTCACA GACGGCGCCA AATTGTTTGA CCAAAAAATA TAGACTTTTG
1151  ATTAAATTAA TTAATATTGT ATGACAAAGG ATTAAACCTA GTTAATGATA
1201  ATAACTTCAG ATCTATAATC AATTAACAGC AATCACGGTC ATAGCAGCGT
1251  TGAGAGAAGA TTAAATGTGA TGTnCATTCA ATATTTCAAG ATCATTAATG
1301  ATAGGGGAAT ATCAAGCAAT AAATAACGAT AAATGGCATT AAAGTAAATA
1351  AGGAGAATGA TTCACCCAAT ATTGAATGAG GTGGATGATT CTTCTTTTTG
1401  ACAATGATGA ATGATGGnCA AATACTAGAA TGTTGGGACC CTTCTCGGAT
1451  CTAATGAAAA AAGTATGGAA TAGTAGATAA TCGAATCTCT TTAGAAAGGT
1501  AGTGATTGTC TTTTATCTAG AGAGAAAGTC TGCTTTTCAA AGAATATTTT
1551  TATCAGAGAA TATTACATCC CCCTCTCTCC CTATnTCTTT TTCTATTTAT
1601  ATGGGACATT CCTCAATCAA TCCTAAAAGT ACATACACCA AGAATATTCA
1651  ATAAAATATT TTTTTGAATA TTCTATTATA AAAACTAGCT GTTAGCACTC
1701  GACCTCGGTC GnTATTGACT ACTCGGTTAC GAGCCCTGTC ATTTACTAAT
1751  CGACCTCGAT TACATCACTT TCTACGATAC TGCTTCATGT CAAATCTTAA
1801  TGAAAGCAGA TTTTGACCCA TACAATAATA TGACAAAATT GCTTCCAAAG
1851  AAAACATGGC TCTTATAGTG AAATATCGTT AGACTGTTAT AGAAAGATCT
1901  GAATTTATTT ATAAGAATAG TGTTTTTTTC TTTTCTTTTC ATATCTAAGG
1951  AGTAAAGCAA CCATGAATAG AAAAGGCTTA GTAACTATAT ATCAAAGGAA
2001  TGGTGTTTTT TCTTTAAATA TGGATAAAAA TTTGTGAATA TAGAAGATTA
2051  GATCAATTAA CAAAGGTTAT GGTGGAGTGG TAAGCAGAGG CGGACCTATG
```

Fig. 16 (Part Teil 2)


```
2101  TGTTATAGTA AGGGGTCACC CACTACTAGA AATCCGGTAA AGATCGATCA
2151  AAAAACCGAC CAACATTGGT CGGTAATGGC CAAAAACTGA CCAAAACGCG
2201  ATCATTTACG TGTGAACGGT ATTTTTATGG TCGGAAAGGA ATACCGACCA
2251  AAGTTGGTCG GAAATTACCG ACCAACTTTG GTCGGTCAAT TAAATTCAAA
2301  AAAAATATTG TAAAAAAAAA CCGACCAAAG TTGATCGGTA TTTTAATTAT
2351  GTAATAAAAA GATTCACTAT CTGGGAATCG AACCGGGGTC TGTACTATGG
2401  CAAGATACTA TTCTACCACT AGACCATTGG TTCATTTTGT TTTAAGACTG
2451  TCTTTTATTT GATTTATACT CTTTAATTAT ATTTTTGCAC GAAAATAACC
2501  GACCAAAGTT GGTCGATTTT ATTAAAAAGT AAAATTACTT ACCAAAGTTG
2551  GTCGATTTTT TTAAATGATC CGCCGAATTA ACCGACCAAT TTTGGTAGGT
2601  TTTTTTAATA TTAATTTTTA TTTATTTTAA TTGAAAAACT AACCAAAGTT
2651  AGTCGGTTTC TTGAAACATA AATTTCGCGG GACTCAAAAA TAGTTTCCCG
2701  CATTTTTGCG CCAAAGAAAA CCGACCAAAG TTGGTCGGTT TCGTAAAAAA
2751  AAAAAAAATT TAAAAAATAT ATTTTAAAAA ACCGACCAAC TTTAGTCGGT
2801  TTTTTGGTCG ATTTTTTGAC CGACCAAAGT TGGTCGGTCG ACCTTGGTCG
2851  GTTTTTGCCG AATTTCTAGT AGTGACCGAA CCCTGTAAGC TTCGGGAGAA
2901  ATTTTGTATA TGTATATGTG TATATCCTTA AAATGATTAA TTTAAAGAAC
2951  GnnGCACCCT GAATACTAGA AGCCTTTAGG GGCACTAGAT GAGCAGAATA
3001  ACGTGTTCTC GTCGCGTAAA AATACTTGGA TCCGCCTATG ATGGTAAGTA
3051  CTTCTTCGTC CTTAATCAGA GGTTTCGACT TCGAGCTCCA GATATAAACT
3101  ATAGACTCGT CTTTATAGCA CCTTTTAATA AGACTATGAC TTCATCTGAT
3151  TTCTCTATAA ATACTCCTCA AGCTTTCGGT TCTTCTCCAT TGTTCAGTTT
3201  CTTTCTCCAC ATCACAGAAG TGAAAACAAA ACAAGAAGAA GAAGAAGAAG
3251  AAAAATAAAG AGTTTCTGTC AAATTAAGTC CAATAGGGAA AATGGAGCTG
3301  TTTGGATCCC CGTTTTCATT ATTGGGGAGA CCATCTAATT CATAAGACCA
3351  ACCCCACACG ATTCTTCGGT CCTTACTAGG GTCGTAGAAC GACTTAGACG
3401  CGTAGAAAAT GCCATAGTCA AGTCTCAATC CTTTCCAACC ATCGACTGAA
3451  GTGTTATCTG GAATATACCT ATCTTGTTTG GCATCATATG TACCAATTGT
3501  GTAGTACTCA AACGCGGCAA CAGGAAGGCT ATTCTTGAGA ACGTACTTAA
3551  CATATTTTCC GTTGTACGAT GCATCTAAAC CATTAGAACC TTGCAAGGAA
3601  ACAGGAAAAA AATCTGGGCA TTCCCAATTT CCTGTTTTGG CAGATGAATG
3651  AAGTGGATGC TCAGCCTTGA TCCATTTCAT GAAATTCCTA CTTCTATACA
3701  ATATTGCCAA CCCACCACGG TTTCTTGAAC TTCCTACCAC AATTCTCCAA
3751  TGACCATCTT TGCCCATCCA AGCTGTTGTC GGGTCACGAA ATTGGGTCTT
3801  GGTGATGCTG ATATCCGGGA CGATCAACGG GTTGTTATCG GGCTTGTTCC
3851  ATTCACGGAG ATATGGATCG GATAAGTTGG CCGGGACGGC GTAATTTTGG
3901  ACTTGGGTCA TGTTGGCATC TACCACTCCA GTGTACAAAA TAATGGGCTT
3951  GTTACCAGGG AGAATAGTTG CTGAACCAGA CCATGTTCCA TATTTGTCAA
4001  ATGGTTTGGA TGGATAAATT GCAGGCTCTA AATTAATCCA ATTGATTAAG
4051  TCTTTTGAGA CTGAATGAGC CCAAACAATG TTGTTCATTG TTGATCCTTT
4101  TGGATTGTAC TGGTAGAATA GATGATAGAC TCGAG
```

Fig. 17 (Part Teil 1)

```
   1  CATAATCAAA TGTGTGGTCT TATGTAGAAC TAATATTTGG TAATATTAGG
  51  CAAGTTGTTA TGTGACTTAT TTTATTCAAA AATATAATAA GAAGTTCAAA
 101  GAGAAGAGTA CAAGTAAGTA AGTAAGCAGA GACGAATCCT GGATTTAAAG
 151  GGTCTGGCTA TATTAATGTT TTTTTAATTT AAGCATTAGC GATTCGCCTT
 201  GCAAGTAATC GATAGGACAA AAGTTTTACC TTACTAATTC TATTGAGGCA
 251  CCAAATCCCT ATGAAAAAGC ATGTAAAATA TGAGAAGACG AAAGAATTAA
 301  ATAGGTTATA ATTATTGTAT AATTTATAAC ACACTTTATG ATAATATTAC
 351  AAATAAGAAT ATCGAATATT TAATTAATGA CGAACTATAA AAGCAAAGAA
 401  GGAAGGATGA GCTTCCAAAA ACAATCGCAA ATGAATAAAG ATGCCCAAAA
 451  TAGAGTAACC TAACGAAGTC GATACTTCCA TTCATAATCA AATCTGTTCA
 501  AAAACACTTG ATGGGTTATT TTTAACTTTA AGAGATGTAT CATATCGTCT
 551  CTTATTATTC CTTTAGGGCT ATTCGCCGTA GGAATAAAAT TTATATGATC
 601  AAATTTCACG TTATATAAAT AATGTGAAGA AAAAACTTAT ACTTTTCAAG
 651  GTAACAAGAA ATCATGTTTT TTTTACGCCT TCGTGGAGAC TACTTCCTCG
 701  TAACAAAAAA TTAACATTTT AAGTGGCGAC TCTAAAAACT CGTGGCCAGT
 751  ATATTAGTCG CCATTAAACA TTATTTTTAA TCATGAGTTC TTTTCTTTTT
 801  TAATCTTTTT TTAAGGTCAA ATTTACCACT TTATCTTATT TATTTAAATT
 851  GAAAAATCCC AAATTTTGCA TTATTTTTTT GAATTCCTTT TTTTTTTACA
 901  CACTCAAAAA GTCAAAACAT TAAAAAAACG AAATAGCAAA TTAAATGGCA
 951  AAAGACTTGT TGTAACAAAA AAAAAATAGT AAAACAGACT CATAAAAGGT
1001  AACAATAACC AACAAATCAC ACAAAATTGT AGATAAATAT TATGCAAACA
1051  AATAAAAATT AATAATCCAA TCCATTTATT TATTTTTTTA AAAAAAACCT
1101  AAATTAACTC TCCATCTTTC AATCAAAAAC AAACTCTACC CATTTTTTTC
1151  ACTATAAATA CTCTTCATAA TTTTCATTTG TTCTTCATTC CCATGTTTCT
1201  TTTCTCCTTA TCCAAAAAAA AAAAAATTAA AAAAAATTAT TTAGATTAAA
1251  TATCACTATC TGTCAAAGCC CAATCATTAA AATAAAATAA AAATTATGGA
1301  TTATTCATCT AATAAAAGTT CTCGTTGGGC TTTGCCAGTT ATCTTAGTTT
1351  GCTTTTTTGT AATTTTATTA TCCAATAATG TTGTTTTTGC TTCTCATAAA
```

Part

Fig. 17 (Teil 2)

```
1401  GTTTTTATTC ACTTGCAATC TCAAAATGCC GTAAATGTTC ATACTGTTCA
1451  TCGAACTGGT TATCATTTTC AGCCCGAAAA ACATTGGATC AATGGTATGT
1501  TTATTCCTTT TTTTCGTCTT TTTTTTATAT ATATATATAT AATAAAACGA
1551  ACATGTTGTG TTTAGTCTAG ATTTAATACT AGTGATTTTT TTGACGCTAA
1601  CAAATAATCG AGTACTCACC ATTTGTCAAT AGATACATTG ACATGTATTA
1651  GTATGATTTT CGTCTTTTTT CGTTGTTTCT AATATTATTT AATCTTCACT
1701  AATTTTTTTA TTTTTCTTTG AATGATGTCT CTTGGTCAAA ACATACAATA
1751  GATCCCAATG GTAAGTTAAC TATATTTTTG TATATTTTTT AAATTTATTT
1801  TATTCTTATT ATATAATATA GGGAAAAAAG GATAAATATA TCCCCGAACT
1851  ATTATAAATA GTATGCACCA GTATCCTCTG TTATACTTTA GAGATATTTT
1901  TGCCGTCAAA AAACTAGAAC ACATATATCC TTTATTTATC CCGATATCGA
1951  ATCGATTGTA CCACGAGTGA AGGGTATAGC TCTAGTTTTG GACGGTAGGG
2001  CACCTAAAGT AGACGAAGA
```